Reply to comment by E.R. Williams on the paper
“11-year solar cycle in Schumann resonance data as observed in
Antarctica” by A.P. Nickolaenko, A.V. Koloskov, M. Hayakawa,
Yu.M. Yampolski, O.V. Budanov, V.E. Korepanov,
Sun and Geosphere, 2015; 10 (1), 15 -20

In our paper we presented the ten-year Antarctic records of Schumann resonance
at the “Vernadsky” station and interpret them. Data analysis and the model
computations were based on the dual approach: we considered all possible
explanations. In the text, we outlined the motivation, on which the particular
interpretations were chosen.

Unfortunately, Dr. Williams was not convinced by our reasoning, he preferred
using the mechanisms we had put aside. This is his qualified and respected
opinion. His qualitative arguments did not change the model data and thus could
not change our mind: we prefer the interpretations suggested in the paper.

We were grateful to Dr. Williams for his interest in the paper, though not agree
with his reasoning.

On behalf of Authors

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Reviewer reply:

The first discussion is concerned with whether X-ray enhancement or GCR
decreasing is the dominant factor to cause the increase of SR modal frequency at
solar maximum, while X-ray enhancement and GCR decreasing coexist at solar
maximum. It depends on which one, X-ray enhancement or GCR decreasing,
affects the conductivity more seriously and there penetration altitudes in the
cavity. As far as I know, there seems no final conclusions. So I think different
opinions are allowable.